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NATIONAL ENERGY BOARD
REPORT TO
THE GOVERNOR IN COUNCIL

**In the Matter of the Application under
The National Energy Board Act of**

Interprovincial Pipe Line Company

April 1968

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REPORT NATIONAL ENERGY BOARD

IN THE MATTER OF an application by Interprovincial
Pipe Line Company for a Certificate of Public Convenience
and Necessity under Part III of the National Energy Board Act
granting it leave to construct and operate additional pipe
line facilities.

File No. 8-2-1-23

HEARD at Ottawa, Ontario, on 12 March 1968.

BEFORE:

R.D. Howland	Vice-Chairman
H.L. Briggs	Member
Maurice Royer	Member

APPEARANCES:

R.B. Burgess, Q.C.)	For Interprovincial Pipe Line
E.G. Sheasby)	Company

F.H. Lamar	For National Energy Board
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REPORT TO THE GOVERNOR IN COUNCIL

INTRODUCTION

Interprovincial Pipe Line Company ("Interprovincial" or "the Applicant") is a company within the meaning of the National Energy Board Act having been incorporated by a Special Act of the Parliament of Canada. Interprovincial has constructed and operates an oil pipe line system which extends from Redwater, Alberta, to a point on the international boundary between Canada and the United States near Gretna, Manitoba; from a point on the international boundary under the St. Clair River near Sarnia, Ontario, to Port Credit, Ontario; and from a point on its Sarnia-Port Credit line near Westover, Ontario, to a point on the international boundary under the West Niagara River near Chippewa, Ontario. Between Western Canada and Central Ontario, Interprovincial's main line is linked by facilities owned and operated in the United States by Lakehead Pipe Line Company, Inc., ("Lakehead") a wholly-owned subsidiary of the Applicant. The construction and development of this system has been described in earlier reports of the Board and most recently in that of March 1967.

In the current application, Interprovincial proposes to extend its 34-inch diameter pipe line looping program between Edmonton and Gretna which was commenced in 1963 and continued in 1964, 1965 and 1967. Specifically, Interprovincial is seeking a Certificate of Public Convenience and Necessity in

respect of construction, in seven separate loops, of approximately 149 miles of 34-inch diameter pipe in Alberta and Manitoba, approximately 0.7 miles of 34-inch diameter pipe across the South Saskatchewan River in Saskatchewan, certain cross-over connections in Alberta and Saskatchewan to tie the Applicant's 24-inch diameter line into its 20-inch diameter line, and additions and modifications to various existing pumping stations in Alberta, Saskatchewan, Manitoba and Ontario.

The Applicant stated that these extensions and modifications to its facilities were required having regard to the continued provision of pipe line transportation service to the market areas served by its pipe line system, including the connected system operated in the United States by Lakehead. In this regard the Applicant informed the Board that Lakehead, under date of 22 January 1968, had received a permit under the signature of the President of the United States to construct and operate a 34-inch pipe line entering that country near Neche, North Dakota. The expansion of facilities in the United States was discussed with the Government of Canada and was referred to in the House of Commons by the Minister of Energy, Mines and Resources on 23 January 1968. The witness also referred to the intention of Lakehead to extend its pipe line in the United States by the construction of a new line to the Chicago area to be

followed by later construction of a line from that area to Sarnia, Ontario thus completing the loop. He explained that the related expansion of facilities within Canada constituted the subject of the present application.

Evidence was given as to the Applicant's policy with regard to the provision of pipe line capacity, including reserve capacity, to transport all oil which may be tendered to the system. The present application represents a continuation of the policy designed not only to provide a prudent measure of reserve capacity but one consistent with the international obligations of the Applicant.

In response to questioning, the Applicant stated that, while not declaring an intention to meet every emergency demand that might arise in the market areas of the United States and Eastern Canada, it would continue to review the capacity of its system in the light of developing demand. The witness referred to the possibility of a future application for approval to lay the 170 miles of 34-inch pipe between Edmonton and Regina which would be required to complete the 34-inch line from Edmonton to Gretna. No decision had yet been made in this regard.

The Applicant testified that without the facilities covered by this application it would, in its view, have insufficient reserve to meet the foreseen requirements of its existing customers.

INTERVENTIONS

No interventions were filed in respect of this application.

SUPPLY

On supply, the Applicant relied on the estimate of reserves of liquid hydrocarbons appearing in the 1966 annual report of the Reserves Committee of the Canadian Petroleum Association which shows that Canadian liquid hydrocarbon reserves increased by 664,680,000 barrels and 1,340,542,000 barrels during 1965 and 1966 respectively, or a total of 1,985,222,000 barrels over the two-year period. The proven remaining reserves at the end of 1966 were shown to be 9,050,618,000 barrels.

FACILITIES

The 57 miles of 34-inch diameter line which Interprovincial proposes to construct between Regina and the United States Border near Gretna, Manitoba, would complete a 34-inch diameter loop line of pipe in that section of its system. The proposed completion by Lakehead of a 34-inch diameter loop line of pipe from the international boundary near Gretna to Superior, Wisconsin, in 1968, will provide a third complete line of pipe in that section of Lakehead's system. The construction of 92 miles of 34-inch diameter pipe as partial pipe line loops which is now proposed between Edmonton and Regina, would leave approximately 170 miles still to be looped in Alberta and Saskatchewan in order to complete the 34-inch diameter third line of pipe from Edmonton to Superior, which was commenced in 1963 on the Interprovincial - Lakehead oil transportation system.

The estimated capital cost of the facilities applied for is summarized in the following table:

Estimated
Capital Cost

Western Section of Pipe Line System From
Edmonton, Alberta to Gretna, Manitoba

149 miles of 34-inch diameter pipe line loop	\$17,114,000
South Saskatchewan River Crossing	250,000
Additional interconnecting piping between system lines of pipe Nos. 1, 2 & 3	200,000
Oil storage and tank farm modifications at Edmonton	1,574,000
Additions of 21,500 hp of pumping equipment to six pumping stations)
Deletions of 6,000 hp of pumping equipment from three pumping stations)
Modifications to pumping stations) 2,950,500

Eastern Section of Pipe Line

Oil storage and tank farm modifications at Sarnia	452,000
Addition of 100 hp of pumping equipment (booster pump to one pumping station)	<u>21,000</u>

Total \$22,561,500

A significant change in the operation of the Interprovincial - Lakehead system will take place as a result of the current construction by Lakehead of 290 miles of 34-inch diameter pipe line from Superior, Wisconsin to Griffith, Indiana, near Chicago, Illinois. Upon completion, all of the demand for Canadian oil by the refineries at Detroit and Toledo will be shipped through this line to the terminal of the Tecumseh Pipe Line Company near Griffith, thence through the Tecumseh line to Cygnet, Ohio. From Cygnet the oil will be carried through the existing Buckeye system to the Detroit - Toledo area. Interprovincial indicated that, as 60,000 barrels per day would be re-routed through this southerly loop system, an average reserve capacity would be available in the existing line from Superior to Sarnia of approximately 100,000 barrels per day.

Appendix 3 shows the forecasted throughputs in relation to the pipe line capacities for each section of the pipe line system before and after completion of the proposed 1968 construction.

Regarding the present application, Interprovincial stated that it does not require any additional right-of-way, but that it does require working rights adjacent to its existing right-of-way to permit installation of the new line of pipe if it is to avoid operating heavy construction

equipment over its existing lines of pipe. Interprovincial did not anticipate any difficulty in obtaining any necessary additional working rights.

Interprovincial, where requested to do so by land owners, is prepared to remove a ten-foot wide and one-foot deep strip of top soil and place it aside for resurfacing the backfill. In respect of drainage and irrigation systems, the Applicant's construction practices would be identical to those agreed to and used in Eastern Canada in 1967 for drainage systems. Interprovincial confirmed its policies in respect of drainage stated before the Board in a hearing at London, Ontario, in May 1967.

Interprovincial proposes to order its line pipe in accordance with the Fourteenth Edition, American Petroleum Institute Standard 5LX, supplemented by additional company specifications which have been filed with the Board.

Line pipe and pumping equipment would be manufactured by and obtained from Canadian manufacturers and construction work would be performed by Canadian contractors.

Construction of the 149 miles of pipe line looping is scheduled to commence on or before 1 June 1968, and the completion date is September 1968. Construction of the pumping and oil storage facilities is scheduled to commence in June 1968 and the expected completion date is December 1968.

FINANCIAL

The Applicant testified that the cost of the proposed construction would be financed partially by bank lines of credit in the area of \$20,000,000, which lines of credit are available until the end of 1969. At that time additional funds will be required to retire the bank loans as well as to redeem approximately \$14,000,000 to \$15,000,000 of Series A and B, 3½ per cent First Mortgage and Collateral Trust Bonds which will mature on 1 January 1970. The Applicant stated that all additional funds required, both for the construction of the facilities now applied for and for the redemption of bonds referred to above, will be raised in Canada. It was testified that the Applicant had not decided whether to arrange long-term financing later this year or in 1969. The Applicant anticipated no difficulty in negotiating such financing.

CONCLUSIONS AND DISPOSITION

The Board has given careful consideration to all the evidence presented to it in respect of this application.

In 1963, 1964, 1965 and 1967 the Board, with the approval of the Governor in Council, issued to the Applicant certificates for looping programs in Western Canada which were necessary stages in the construction of what will be eventually a third line of pipe between Edmonton, Alberta, and Superior, Wisconsin, at the head of Lake Superior. The facilities proposed to be constructed or installed pursuant to this application are integral to that program.

The Board is aware that Lakehead has received a Presidential Permit under date of 22 January 1968 to construct and operate a 34-inch O.D. pipe line to connect with Inter-provincial's facilities at the international boundary near Neche, North Dakota.

The Board agrees with the view of the Applicant that current and potential demand on its system necessitates additional facilities at this time and is satisfied that the proposed additions are and will be required by the present and future public convenience and necessity.

The Board is satisfied that the Applicant is able to finance the proposed construction. It is also satisfied with the Canadian content of its construction program.



Considerable discussion occurred during the hearing about the desirability and practicability of the Applicant being required to prepare and file with the Board supplementary plans which would show the actual location of the additional line of pipe in relation to the right-of-way limits; to its other lines of pipe; and to the ground profile. The Board proposes to study this subject more intensively and to consult companies under its jurisdiction as to the merits of such a requirement.

The Board notes the Applicant's intention to use pipe manufactured by the electric resistance welded process. The Board has special reasons to be concerned about this matter and in order to facilitate its continuing research into the performance of pipe welded by different processes, Interprovincial will be requested to maintain suitable records distinguishing the locations at which pipe manufactured by differing welding processes has been laid.

With regard to specifications for pipe, the Applicant will be required to adhere strictly to the specifications and drawings contained in the application as amended and otherwise filed with the Board. In this regard, the Board has under consideration the advisability of issuing further general instructions to

facilitate a more complete examination and understanding of an applicant's proposed specifications for pipe. These instructions would supplement the Board's requirements concerning the design of a proposed gas or oil pipe line, which requirements are now set forth in Clause (8) of Part I and Clause (4) of Part II respectively, of the Schedule to the Rules relating to Practice and Procedure in Proceedings before the Board.

The Board is therefore prepared to issue, subject to the approval of the Governor in Council, a certificate of public convenience and necessity to Interprovincial Pipe Line Company in respect of the proposed additional facilities upon the following terms and conditions:

- 1 The pipe line facilities shall be the property of and be operated by the Company.
- 2 (1) The Applicant shall cause the pipe line facilities, in respect of which this certificate is issued, to be designed, manufactured, constructed and installed in accordance with those specifications and drawings contained in the application as amended and otherwise filed with the Board.
- (2) No variation in the specifications and drawings described in subsection (1) shall be made without the prior approval of the Board.

- 3 The construction and installation of the pipe line facilities shall be completed not later than 31 January 1969, unless upon application by the Company a later day is fixed by the Board and approved by the Governor in Council.

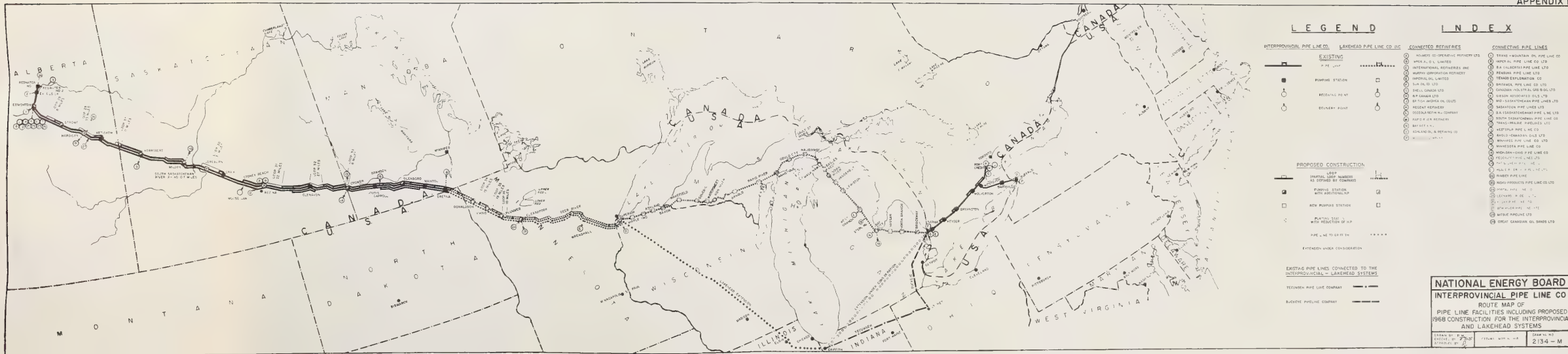
All of which is respectfully submitted,

Robert D Howland.
(Vice-Chairman)

H. L. Briggs
(Member)

Maurice Lopez
(Member)

Ottawa, Ontario,
April 1968.



INTERPROVINCIAL PIPE LINE COMPANYDETAILS OF FACILITIES IN THE APPLICATIONA. Installation of 149 miles of 34-inch Pipe Line,
Approximate locations and distances

The Applicant proposes to construct an addition to its pipe line consisting of approximately 149 miles of 34-inch O.D. pipe to be laid in seven separate loops. The loops will be located in the Provinces of Alberta, Saskatchewan and Manitoba between Mile Post 31.9, a point approximately 32 miles east of Edmonton Pumping Station and Mile Post 596.4, at Cromer Pumping Station.

The approximate locations and distances of these loops are as follows:

<u>Loop</u>	<u>From Mile Post</u>	<u>To Mile Post</u>	<u>Distance</u>
28	31.9	50.1	18.2 miles
29	95.7	129.1	33.4
37	163.8	173.4	9.6
30	325.5	356.1	30.6
31	437.9	459.9	22.0
32	504.8	531.7	26.9
33	588.3	596.4	8.1
South Sask. River Crossing	313.8	314.5	<u>0.7</u>
		Total	149.5 miles

B. Additions to Existing Pumping Stations

- (1) Edmonton, Alberta - one 2500 hp and one 1500 hp electric pumping units. Two 150,000 barrel tanks with associated piping.
- (2) Strome, Alberta - one 2500 hp electric pumping unit.
- (3) Hardisty, Alberta - removal of one 2500 hp electric unit and certain piping modifications.
- (4) Metiskow, Alberta - certain piping modifications.
- (5) Kerrobert, Sask. - one 2500 hp electric pumping unit.

- (6) Milden, Sask. - one 2000 hp electric pumping unit.
- (7) Loreburn, Sask. - removal of one 2000 hp electric unit and certain piping modifications.
- (8) Regina, Sask. - removal of one 1500 hp electric unit and certain piping modifications.
- (9) Cromer, Man. - two 2000 hp and one 1000 hp electric pumping units.
- (10) Glenboro, Man. - two 2000 hp and one 1500 hp electric pumping units.
- (11) Sarnia, Ontario - one 150,000 barrel tank with associated piping.
- (12) Westover, Ontario - certain piping and booster pump modifications.

INTERPROVINCIAL PIPE LINE COMPANY

Estimated Average Capacities and Throughputs
for Operations in Years 1968 and 1969
of Interprovincial - Lakehead Pipe Line Systems

<u>Sections</u>	1968 Operation		1969 Operation After Completion of Proposed 1968	
	<u>Present Facilities</u>		<u>Construction</u>	
	Capacity Average b/d (000)	Throughput Average b/d (000)	Capacity Average b/d (000)	Throughput Average b/d (000)
Edmonton to Regina (Ex Kerrobert)				
Line #1	170.0	161.0	174.0	172.5
Line #2	<u>356.0</u>	<u>265.8</u>	<u>459.0</u>	<u>310.6</u>
Total	526.0	426.8	633.0	483.1
Regina to Cromer				
Line #1	165.0	161.0	80.0	68.0
Line #2	378.0	288.4	243.0	112.0
Line #3	<u>-</u>	<u>-</u>	<u>500.0</u>	<u>311.6</u>
Total	543.0	449.4	823.0	491.6
Cromer to Gretna				
Line #1	90.0	42.0	80.0	68.0
Line #2	161.0	161.0	270.0	270.0
Line #3	<u>512.0</u>	<u>416.4</u>	<u>512.0</u>	<u>311.6</u>
Total	763.0	619.4	862.0	649.6
Gretna to Superior				
Line #1	161.0	161.0	80.0	68.0
Line #2	512.0	416.4	229.0	226.4
Line #3	<u>-</u>	<u>-</u>	<u>512.0</u>	<u>311.6</u>
Total	673.0	577.4	821.0	606.0
Superior to Sarnia	530.0	469.3	530.0	429.9
Superior to Griffith	-	-	204.0	60.0
Sarnia to Port Credit	195.0	158.5	202.0	161.7
Westover to Buffalo	<u>84.0</u>	<u>55.8</u>	<u>79.0</u>	<u>49.6</u>
Total Ex Sarnia	279.0	214.3	281.0	211.3

